

PATENT Customer No. 22,852 9960.0001-06

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| In re Application of: | |
|--------------------------------|----------------------------|
| Campbell et al. |) Group Art Unit: 1632 |
| Serial No.: 09/989,126 |) Examiner: D. Crouch |
| Filed: November 21, 2001 |) Confirmation No. 1814 |
| For: UNACTIVATED OOCYTES AS CY |) TOPLAST |

RECIPIENTS FOR NUCLEAR TRANSFER

Commissioner for Patents P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

TERMINAL DISCLAIMER

Assignee, Roslin Institute represents that it is the assignee of the entire right, title and interest in and to the instant application, Application No. 09/989,126, filed November 21, 2001, as evidenced by assignments recorded at Reel 8582, Frames 0263-0264 (copy attached); Reel 9220, Frames 0250-0256 (copy attached); and Reel 017336, Frame 0136 (copy attached).

Assignee, Roslin Institute, further represents that it is the assignee of the entire right, title and interest in and to U.S. Patent No. 6,548,741, as evidenced by assignments recorded at Reel 12625, Frames 0241-0246 (copy attached), and by assignments attached hereto.

Open Comparison of the entire right is the assignee of the entire right, title and interest in and to U.S. Patent No. 6,548,741, as evidenced by assignments recorded at Reel 12625, Frames 0241-0246 (copy attached), and by assignments attached hereto.

To obviate a double patenting rejection, assignee hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application, which would extend beyond the expiration date of the full statutory

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Application No. 09/989,126

term defined in 35 U.S.C. §§ 154 to 156 and 173, as presently shortened by any

terminal disclaimer, of prior patent No. 6,548,741. Assignee hereby agrees that any

patent so granted on the instant application shall be enforceable only for and during

such period that it and the prior patent are commonly owned. This agreement runs with

any patent granted on the instant application and is binding upon the grantee, its

successors or assigns.

In making the above disclaimer, Assignee does not disclaim the terminal part of

any patent granted on the instant application that would extend to the expiration date of

the full statutory term as defined in 35 U.S.C. §§ 154 to 156 and 173 of the prior patent,

as presently shortened by any terminal disclaimer, in the event that the prior patent later

expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a

court of competent jurisdiction, is statutorily disclaimed in whole or in part, is terminally

disclaimed under 37 C.F.R. § 1.321, has all claims canceled by a reexamination

certificate, is reissued, or is in any manner terminated prior to the expiration of its full

statutory term as presently shortened by any terminal disclaimer.

The undersigned is an attorney of record.

Respectfully submitted,

Dated: March 9, 2007

Salvatore J. Arrigo

Reg. No. 46,063

Telephone: 202-408-4160

Facsimile:

202-408-4400

E-mail: arrigos@finnegan.com

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07-14-1997

155 DEPARTMENT OF COMMERCE Pages and Trademark Office

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|---|--|---|
| l | To the Honorable Commissioner of Patents and Trademarks: | Please record the attached original documents or copy thereto: |
| 1 | 1 Name of conveying party(ics): | 2. Name and address of rees iving party(ies): |
| I | Keith Henry Stockman CAMPHELL and Ian WH.MITT | Name: Roslin Institute (Edinburgh) |
| Ì | Kean Helay Sacanta | Internal Address |
| | Additional name(s) of conveying party(ics) attached?Yes _X_No | |
| I | 3. Nature of conveyance: | Street Address: Rostin |
| I | X Assignment Merger | |
| I | Security Agreement Change of Name | City: Midlothian EH25 91'S State/Country: GREAT BRITAIN |
| l | Other | ZIP: |
| ۱ | Execution Date: May 13, 1997 | Additional name(s) & address(es) attached? Yes X No |
| ŀ | a whitestion purpoer(s) or patent number(s): | |
| I | If the document is being filed together with a new application, the en | eccution date of the application is: |
| | A. Patent Application No(s). 08/803,165, filed February 19, 1997 | B. Pateni No(s) |
| | A. Paicit Application 1995 | · |
| ١ | | |
| ļ | Additional numbers attact | 6. Total number of applications and patents involved: 1 |
| Ì | 5. Name and address of party to whom correspondence | 6. Total number of applications and parents involved a |
| ۱ | 5. Name and address of persons of | 7. Total fee (37 CFR 3.41) \$40.00 |
| İ | | Enclosed |
| ١ | Internal Address: | X Authorized to be charged to deposit account |
| ı | 0.44 200 | 8. Deposit account number: |
| I | Street Address: 99 Canal Center Plaza, Suite 300 | 12-2237 |
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| | City: Alexandria State: VA ZIP:22314 | THE SPACE |
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| | the original document. | etion is true and correct and any attached copy is a true copy of |
| | Robert L. Price, 22,685 Name and Registration No. of Person Signing | Signature |
| ١ | | Total number of pages comprising cover sheet: 1 |
| ŀ | (MB No. 0851-0011 (exp. 4/94) | |
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PATENT

REEL: 858? FRAME: 0263

Eucket No.: 2980-003

ASSIGNMENT

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| is hereby ac | knowledged, the undersigned. | | | | | |
| | | (4) | | | | |
| (1) Keith H | enry Stockman Campbell mut | (5) | | | | |
| (3) | | | | | | |
| who have n | nade a certain new and useful inve | ntion, hereby sell, ass | ign and transfe | r unto | | |
| Parlin Insti | tute (Edinburgh), Roslin, Midloth | ian EH25 9PS, Great | <u>Britain</u> | | • | |
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| as defined i | rs and assigns (hereinafter designa n 35 U.S.C. 100 in the invention of | , | | | | ed States of America |
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| | | | | | | / United States Serial |
| (a) for whi | ch an application for United States | Letters Patent was fi | ied on <u>reordar</u> | <u>7 17, 1223</u> , 4 | | |
| No. 08/803. | <u>165</u> ; or | | | 4.4 | 17 H. 190 | <i>!</i> ~ |
| as 6 whi | 165; or ch an application for United State | s Letters Patent was e | executed on . | They | 13 117 | ; ; |
| | | | | | | |
| United State | ersigned hereby authorize and req es Letters Patent which may be g is, or continuations-in-part thereof, roperty to the said ASSIGNEE, if agree that the attorneys of record | and the right to all b | benefits under t | he Internatio | mal Convention | for the Protection of |
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| AN | D the undersigned hereby agree to ag original, divisional, reissued or | transfer a like interes | t, and to render | d States, upo | n request of the | said ASSIGNEE, its |
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| successors. | issigns and legal representatives, an in growing out of or related to the s | aid invention; and to | execute any pap | ers by the sa | id ASSIUNEE, invention he | reby transferred. |
| and legal re | n. growing out of or related to the spresentatives, deemed essential to | ASSIGNEE's full pro | Mection and titi | ie ili and w | | |
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| RECOR | DED: 06/30/1997 | | S. 85. 63.00 .00 .00 | Z7 75 M | | A Profession Wash |

MRD 5-29-98

06-10-1998

| To the Honorable Commissioner of resease and 100733314 To the Honorable Commissioner of resease and 100733314 I. Name of conveying party(ies): ROSLIN INSTITUTE (EDINHURGH) Additional name(s) of conveying party(ies) attached? Yes X No 3. Nature of conveyance: X. Assignment Merger 100733314 iginal documents or copy thereto: 2. Name and address of receiving party(ies): Name: Roslin Institute (Idinhursh) Internal Address: Street Address: Roslin Street Address: Roslin | FORM PTO-1596 | iwaa a wi | U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office |
|--|--|--------------------------------|--|
| 1. Name of conveying partytics): ROSLIN INSTITUTE (EFINNBURGH) Additional namets) of conveyance: X. Assignment | | i tabite: san onid bom Habba a | |
| 3. Nature of conveyance: X. Assignment | To the Honorable Commissioner on 1. Name of conveying party(ies): | LEIEMO MAN STANDARDON | 2. Name and address of receiving party(ies): Name: Roslin Institute (Fairburgh) |
| Security Agreement _ Change of Name _ Security Agreement _ Change of Name _ Other _ Other _ Additional name(s) & address(es) attached? X Yes _ No _ Additional name(s) & address(es) attached? X Yes _ No _ Additional name(s) & address(es) attached? X Yes _ No _ Additional name(s) & address(es) attached? X Yes _ No _ Additional name(s) & address(es) attached? X Yes _ No _ Additional name(s) & address(es) attached? X Yes _ No _ Additional name(s) & address(es) attached? X Yes _ No _ Additional name(s) & address is _ No _ Additional name(s) & _ No _ | 3. Nature of conveyance: | d? Yes X No | |
| 4. Application number(s) or patent number(s): If the document is being filed together with a new application, the execution date of the application is: A. Patent / optication No(s). 08/803, 165, filed February 19, 1997 Additional numbers attached? Yes X No 5. Name and address of party in whom correspondence concerning document should be malled: Name: Gilberto M. Villacotta. PEPPER HAMILTON LLP Internal Address: Street Address: 1300 Nineteenth St. N.W. Street Address: 1300 Nineteenth St. N.W. Street Address: 1300 Nineteenth St. N.W. City: Washington, D.C. State: ZIP: 20036 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Gilberto M. Villacotta. 34.038 May 29, 1998 Date OMA Additional numbers attached? Yes X No 6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 3.41) | Security Agreement Change Other | | City: Midlothian EH25 9PS State/Country: GREAT BRITAIN ZIP: Additional name(s) & address(es) attached? X Yes No |
| Additional numbers attached? Yes X No 5. Name and address of party to whom correspondence concerning document should be mailed: Name: Gilberto M. Villacotta. PEPPER HAMILTON LLP Internal Address: Street Address: 1300 Nineteenth St., N.W. Street Address: 1300 Nineteenth St., N.W. Street Address: 2IP: 20036 City: Washington, D.C. State: ZIP: 20036 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. May 29, 1998 Gilberto M. Villacotta. 34,038 Signature Date May 29, 1998 Do Nowledge Signature Date May 29, 1998 Signature Date | 4. Application number(s) or patent number(s): | ew application, the executi | op date of the application is: B. Patent No(s). |
| Name: Gilberto M. Villacorta. PEPPER HAMILTON LLP Internal Address: Street Address: 1200 Nineteenth St., N.W. 5. Name and address of party to whom correspon | | 6. Total number of applications and patents involved: 1 |
| Street Address: 1300 Nineteenth St., N.W. 50-0436 City: Washington, D.C. State: ZIP: 20036 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any anached copy is a true copy of the ariginal document. Gilberto M. Villacorta, 34,038 Date Date | Name: Gilberto M. Villacorta, PEPPER HAMI | | 7. Total fee (37 CPR 3.41) Enclosed |
| /1978 PADULEN 00000171 300438 08803183 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Gilberto M. Villacorta. 34,038 Date Signature Signature Date | Street Address: 1300 Nineteenth St., N.W. | , | |
| 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the ariginal document. Gilberto M. Villacorts. 34,038 Date Signature Signature | City: Washington, D.C. State: | ZIP: 20036 | |
| Gilberto M. Villacorta, 34,038 Signature May 29, 1998 Date | -5A 40.00 CH | | |
| Gilberto M. Villacorte, 34,038 Signature | Statement and signature. To the best of my knowledge and belief, original document. | the foregoing information | Macorta May 29, 1998 |
| | Gilberto M. Villacorta, 34,038 Name and Registration No. of Person Signing | Sign | ature |

CMB No. 0851-0011 (exp. 4/94)

Document # 71087

DOCKET NO.: 2980-003

Continuation of Recordation Cover Sheet, Item # 2:

The Minister of Agriculture, Fisheries and Food Nobel House 17 Smith Square London, SW1P 3JR

Biotechnology and Biological Sciences Research Council Polaris House North Star Avenue Swindon, SN2 1UH

> PATENT REEL: 9220 FRAME: 0251

PATENT ASSIGNATION

by

(1) ROSLIN INSTITUTE (EDINBURGH).

in favour of

ROSLIN INSTITUTE (EDINBURGH); THE MINISTER OF AGRICULTURE, FISHERIES AND FOOD; and BIOTECHNOLOGY and BIOLOGICAL SCIENCES RESEARCH COUNCIL

1998

Wright Johnston & Mackenzie Solicitors 12 St Vincent Place Glasgow G1 2EQ

(Ref: A00020016/KMC/JCH)

PATENT REEL: 9220 FRAME: 0252

PATENT ASSIGNATION

by



(1)

ROSLIN INSTITUTE (EDINBURGH), incorporated under the Companies Acts as a company limited by guarantee with registered number 157100 and having its registered office at Roslin, Midlothian, EH25 9PS ("the Assignor")

in favour of

(EDINBURGH), INSTITUTE ROSLIN (2) incorporated under the Companies Acts as a company limited by guarantee with registered number 157100 and having its registered office at Roslin, Midlothian, EH25 9PS and THE AGRICULTURE. **OF** MINISTER FISHERIES AND FOOD of Nobel House, 17 Smith Square, London, SW1P 3JR acting through the Ministry of Agriculture, Fisheries and Food; and BIOTECHNOLOGY and RESEARCH **SCIENCES** BIOLOGICAL COUNCIL, whose principal office is at Polaris House, North Star Avenue, Swindon, SN2 1UH (collectively referred to as "the Assignees")

WHEREAS

- (A) The Assignor is the proprietor of the Patent Applications set out in the Schedule annexed and executed as relative hereto (the "Patent Applications");
- (B) The Assignor has agreed to assign the Patent Applications to the Assignees; and
- (C) The Assignees have agreed to hold the Patent Applications and any granted patents issuing from such applications subject to a Co-Ownership Agreement to be entered into of even date herewith by the parties to this Agreement.

NOW IT IS HEREBY AGREED as follows:-

1. Assignation

The Assignor hereby assigns to the Assignees as joint owners the entire right, title and interest of the Assignor in and to the Patent Applications and any patents or other similar forms of protection granted pursuant to the Patent Applications together with the right to recover and to take all such proceedings as may be necessary for the

PATENT REEL: 9220 FRAME: 0253 recovery of damage and other forms or relief in respect of all infringements of the Patent Applications whether taking place before or after the date of this Assignation.

Further Assurance

Each party agrees generally to sign, seal, execute and deliver all documents, deeds, licences and agreements and to do all acts and things which may be required or may be deemed necessary that any party for giving effect to this Assignation including, without limitation, entry into instruments confirmatory of such rights for registration with appropriate authorities anywhere in the world.

3. Governing Law

This Agreement shall be governed by Scots Law and the parties agree to submit to the non exclusive jurisdiction of the Scottish Courts: IN WITNESS WHEREOF these presents consisting of this and the preceding page together with the Schedule annexed hereto are executed as follows:-

Subscribed for and on behalf of BIOTECHNOLOGY AND BIOLOGICAL SCIENCES RESEARCH COUNCIL by Scott McGregor Lawrie their duly authorised signatory at London on 26th March 1998 before the following witness:-

| Witness: | Justice A Strong | |
|-------------|---------------------|----------------------|
| | JUSTINE ANN STEENS | Scott hachanth |
| Address: | 12. ST VINKENT PUCE | Authorised Signatory |
| | GUSGOW | |
| Occupation: | TRAINER SOLKITOR | •. |

Subscribed for and on behalf of THE MINISTER OF AGRICULTURE, FISHERIES AND FOOD by Dr Anthony Richard Burne, duly authorised signatory at London on 26th March 1998 before the following witness:-

Witness: Maryly Wides

Full Name: MRS MRRYUN WCCS ABone

Address: ST. CHESTOPHER HOUSE Authorised Signatory

SOUTHWACK ST, LONDON

Occupation: <u>CIVIL Spenary.</u>



REEL: 9220 FRAME: 0254

Subscribed for and on behalf of ROSLIN INSTITUTE (EDINBURGH) by Professor Grahame John Bulfield, Director and Chief Executive, at Roslin on 7th April 999 before the following witness:

Witness:

Cian X Nort

Full Name:

CLARE ALINES NEWSON

Address:

12 JT V. NIENT PLACE

GUASHOW

Occupation:

SOLICITOR

PATENT

REEL: 9220 FRAME: 0255

This is the Schedule referred to in the Assignation by (1) Roslin Institute (Edinburgh) in favour of (2) Roslin Institute (Edinburgh); The Minster of Agriculture, Fisheries and Food; and Biotechnology and Biological Sciences Research Council

1. Unactiviated Oocytes and Cytoplast Recipients for Nuclear Transfer (MAGIC)

| Filing Date | Priority Date | Country | Application No |
|------------------|-----------------|---------------|----------------|
| 30th August 1996 | 31" August 1995 | International | PCT/GB96/02098 |
| 30th August 1996 | 31" August 1995 | South Africa | 96/7383 |
| 30th August 1996 | 31" August 1995 | USA | 08/803,165 |

International Patent Application - proceeding in:

Czech Republic, Hungary, Norway, Poland, Russian Federation, Ukraine, Canada, Brazil, Mexico, Cuba, Australia, China, Israel, Japan, Republic of Korea, New Zealand, Singapore, Vietnam, United Kingdom, Hong Kong, Europe (Austria, Belgium, Switzerland/Liechtenstein, Germany, Denmark, Spain, Finland, France, United Kingdom, Greece, Ireland, Italy, Luxembourg, Monaco, Netherlands, Portugal, Sweden).

2. Quiescent Cell Populations for Nuclear Transfer (Quiescence)

| Filing Date | Priority Date | Country | Application No |
|------------------------------|------------------|---------------|----------------|
| 30th August 1996 | 31st August 1995 | International | PCT/GB96/02099 |
| 30th August 1996 | 31st August 1995 | South Africa | 96/7390 |
| 30 th August 1996 | 31st August 1995 | USA | 08/802,282 |

International Patent Application - proceeding in:

Czech Republic, Hungary, Norway, Poland, Russian Federation, Ukraine, Canada, Brazil, Mexico, Cuba, Australia, China, Israel, Japan, Republic of Korea, New Zealand, Singapore, Vietnam, United Kingdom, Hong Kong, Europe (Austria, Belgium, Switzerland/Liechtenstein, Germany, Denmark, Spain, Finland, France, United Kingdom, Greece, Ireland, Italy, Luxembourg, Monaco, Netherlands, Portugal, Sweden).

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Albre 188

RECORDED: 05/29/1998

PATENT

REEL: 9220 FRAME: 0256





UNITED STATES PATENT AND TRADEMARK OFFICE

Under Secretary of Commerce for Intellectual Property and DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

MARCH 21, 2006

PTAS

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FINNEGAN, HENDERSON, FARABOW, GARRETT &

7002503**93**4

LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413

> UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT SERVICES BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 03/14/2006

REEL/FRAME: 017336/0136

NUMBER OF PAGES: 10

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER: 9960.0002-02

ASSIGNOR:

ROSLIN INSTITUTE (EDINBURGH)

DOC DATE: 06/30/2003

ASSIGNOR:

SECRETARY OF STATE FOR

ENVIRONMENT, FOOD & RURAL

AFFAIRS

DOC DATE: 06/30/2003

ASSIGNOR:

BIOTECHNOLOGY AND BIOLOGICAL

SCIENCES RESEARCH COUNCIL

(BBSRC)

DOC DATE: 05/22/2003

017336/0136 PAGE 2

ASSIGNEE:

ROSLIN (EDINBURGH)

ROSLIN

MIDLOTHIAN, EH25 9PS, UNITED

KINGDOM

FILING DATE: 02/19/1997

SERIAL NUMBER: 08802282 ISSUE DATE: 11/14/2000

TITLE: QUIESCENT CELL POPULATIONS FOR NUCLEAR TRANSFER IN THE PRODUCTION

OF NON-HUMAN MAMMALS AND NON-HUMAN MAMMALIAN EMBRYOS

SERIAL NUMBER: 08803165

FILING DATE: 02/19/1997 ISSUE DATE: 06/26/2001

PATENT NUMBER: 6252133 TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS OF NUCLEI FROM

QUIESCENT AND NON-QUIESCENT CELLS WHILE MAINTAINING CORRECT PLOIDY

SERIAL NUMBER: 09225233

FILING DATE: 01/04/1999

ISSUE DATE: TITLE: QUIESCENT CELL POPULATIONS FOR NUCLEAR TRANFER

FILING DATE: 09/08/2000

SERIAL NUMBER: 09658862

ISSUE DATE:

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

SERIAL NUMBER: 09650194

FILING DATE: 08/29/2000

ISSUE DATE:

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

SERIAL NUMBER: 09650285

FILING DATE: 08/29/2000

ISSUE DATE: 02/25/2003

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS OF QUIESCENT CELL

NUCLEI WHILE MAINTAINING CORRECT PLOIDY

SERIAL NUMBER: 09973701

FILING DATE: 10/11/2001

ISSUE DATE:

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

SERIAL NUMBER: 09989125

FILING DATE: 11/21/2001

ISSUE DATE:

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

SERIAL NUMBER: 09989128

FILING DATE: 11/21/2001

ISSUE DATE:

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

SERIAL NUMBER: 09989126

FILING DATE: 11/21/2001

ISSUE DATE:

TITLE: UNACTIVATED COCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

SERIAL NUMBER: 10118337

FILING DATE: 04/09/2002

3/21 6 5:26 PAGE 004/008 Fax Server RightFax

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

017336/0136 PAGE 3

FILING DATE: 05/21/2002 SERIAL NUMBER: 10151304

ISSUE DATE:

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

FILING DATE: 05/21/2002

SERIAL NUMBER: 10151305 ISSUE DATE:

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

FILING DATE: 07/09/2002

SERIAL NUMBER: 10190611 ISSUE DATE:

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

FILING DATE: 07/09/2002

SERIAL NUMBER: 10190617 ISSUE DATE:

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

FILING DATE: 09/05/2002 SERIAL NUMBER: 10234854 ISSUE DATE:

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

FILING DATE: 08/10/2004 SERIAL NUMBER: 10914161

ISSUE DATE: TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

FILING DATE: 08/11/2004 SERIAL NUMBER: 10915338

ISSUE DATE:

TITLE: OUIESCENT CELL POPULATIONS FOR NUCLEAR TRANSFER

FILING DATE: 08/03/2004

SERIAL NUMBER: 10909845 ISSUE DATE:

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

FILING DATE: 03/02/2005

SERIAL NUMBER: 11068903 ISSUE DATE:

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS FOR NUCLEAR TRANSFER

FILING DATE: 02/19/1997 SERIAL NUMBER: 08802282 ISSUE DATE: 11/14/2000

PATENT NUMBER: 6147276

TITLE: QUIESCENT CELL POPULATIONS FOR NUCLEAR TRANSFER IN THE PRODUCTION

OF NON-HUMAN MAMMALS AND NON-HUMAN MAMMALIAN EMBRYOS

FILING DATE: 02/19/1997 SERIAL NUMBER: 08803165 ISSUE DATE: 06/26/2001

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS OF NUCLEI FROM

QUIESCENT AND NON-QUIESCENT CELLS WHILE MAINTAINING CORRECT PLOIDY

FILING DATE: 08/29/2000 SERIAL NUMBER: 09650285

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3/21 5:26 PAGE 005/008 Fax Server

TITLE: UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS OF QUIESCENT CELL NUCLEI WHILE MAINTAINING CORRECT PLOIDY

017336/0136 PAGE 4

SHAREILL COLES, EXAMINER ASSIGNMENT SERVICES BRANCH PUBLIC RECORDS DIVISION

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|--------------------|---|-----------------------|----------------------------------|--------------|----------|---|--------------------------------|---|
| Tot | ne Director of the U.S. Pa | tent and | Trademark Office: | | | Mall Stop A | esignment R | ecordation Services |
| Ples: | Name of composition the | nv(les): | ocuments or copy thereof. | 2. | N | une and addres | s of receiving | party(les): |
|] " | (1) Roslin Institute (Ed | dinburgh) | (Dated: June 30, 2003) | Name: | | Roslin (Edinbu | ngh) | |
| Addit | Ional name(s) of conveying See Attachment | party(le | s) ettached? 🛛 Yes 🗌 No | Internal | | | n | |
| 3. | Nature of conveyance: | | | Street | \ddr | 455: | · · | |
| × | Assignment | | Merger | City: | M | diothian, EH25 | 9P6 | |
| | Security Agreement | 0 | Change of Name | State: | | The United Kingdom | Zip Code: | [Text] |
| | Joint Recearch Agreement | 0 | Government Interest Assignment | Addition | nai r | ame(s) & Addh | ses(es) sitach | ned? |
| | Executive Order 9494, Confirmatory License | | Other: | | | Yes . | ⊠ No | |
| Execu | ition Date: [Date(a)]: (| 2) June 1 3) May 2 | 10, 2003 2 2003 | | | • | | |
| 4. | Application number(s) of the application: [Type s | r patent | number(s): If this document is b | eing filed t | တ္မမ | שפת ב רלווער ופרל | application, 1 | he execution date of |
| A. | Patent Application Number | ber(s): | | B. | Pe | terá Number(a) | | |
| | 08/802,282 08/803,185 | | | | 6,2 | 47 ,276 52,1 33 25 <i>,24</i> 3 | | |
| | Add | itional nu | imbers strached? 🛮 🖾 Yes | See Atta | chi | nent B [|] No | |
| 5. | Name and address of pa concerning document sh | uty to wh | om correspondence nailed: | 6. | To 23 | lal number of a | pplications an | d patente involved: |
| Name: | | · · · · · | | 7. | To | al tee (37 CFR | 1.21(h) and 2 | 441- 540 |
| nterna | Address: FINNEGAN, I | HENDER | SON, FARABOW, GARRETT | | | Enclosed (Pic | ease charge d to deposit so | leficiency or credit count 06-0916) |
| Street | Address: 901 New York | Avenue | , N.W. | Ø | | Authorized to | be charged | to deposit account |
| City: | Washington, D.C. | • | | | | | | E |
| State: | Zip |): | 20001-4413 | 8. | De | posit Account P | to.: <u>06-0918</u> | |
| 3. | Statement and signature. | | | | | a | | |
| To the I locume | to the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original ocument. | | | | | | | |
| | Signed: | | | | | | | |
| | Tabelan | b | name including cover sheet at | tachment | t an | d documents: | 10 | |

1. (continued) Attachment A: Additional Conveying Parties

- (2) Secretary of State for Environment, Food & Rural Affairs (Dated: June 10, 2003)

 ("The Secretary of State") acting through the
 Department for the Environment, Food & Rural Affairs ("DEFRA")

 formerly known as the Ministry for Agriculture Fisheries and Food ("MAFF")
- (3) Biotechnology and Biological Sciences Research Council ("BBSRC")
 (Dated: May 22, 2003)



A. U.S. Patent Application/Serial No.

09/225,233 09/658,862 09/650,194 09/650,285 09/973,701 09/989,125 09/989,128 09/989,126 10/118,337 10/151,304 10/151,305 10/190,611 10/190,617 10/234,854 10/914,161 10/915,338 10/909,845 11/068,903

ASSIGNATION

BY

ROSLIN INSTITUTE (EDINBURGH) incorporated under the Companies Acts as a company limited by guarantee with registered number 157100 and having its registered office at Roslin, Midlothian, EH25 9PS ("Roslin");

THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD & RURAL AFFAIRS of Nobel House, 17 Smith Square, London, SW1P 3JR ("the Secretary of State") acting through the Department for the Environment, Food & Rural Affairs ("DEFRA") formerly known as the Ministry for Agriculture Fisheries and Food ("MAFF"); and

BIOTECHNOLOGY AND BIOLOGICAL SCIENCES RESEARCH COUNCIL whose principal office is at Polaris House, North Star Avenue, Swindon, SN2 1UH ("BBSRC");

In favour of

ROSLIN INSTITUTE (EDINBURGH) incorporated under the Companies Acts as a company limited by guarantee with registered number 157100 and having its registered office at Roslin, Midlothian, EH25 9PS ("Roslin").

WHEREAS:

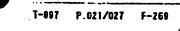
- (A) Roslin, the Secretary of State and BBSRC are legal and beneficial owners of the patents and patent applications set out in the Schedule annexed and identified as relative hereto ("the Patents").
- (B) Roslin, the Secretary of State and BBSRC have agreed to assign any rights and Interest they may have in the Patents to Roslin on the terms set out in this Assignation.

IT IS AGREED as follows:

1. ASSIGNATION

In consideration of the sum of £1 to be paid by each of Roslin, the Secretary of State and BBSRC to each of Roslin, the Secretary of State and BBSRC (the receipt and sufficiency of which is hereby acknowledged) Roslin, the Secretary of State and BBSRC hereby assign to Roslin:

1.1 all of its right, title and interest in and to the Patents; and



1.2 all rights and powers arising or accrued therefrom (whether under statute or common law) including the right to sue for damages and other remedies in respect to any prior infringement of the assigned rights in or in respect of the Patents and to retain any and all sums obtained through such actions and the right to apply for, prosecute and obtain patent or similar protection throughout the world in respect of the inventions therein including any rights to claim priority therefrom so that the grant of any such patent or similar protection shall be in the name of and vest in Roslin.

LAW AND JURISDICTION

This Assignation shall be governed by and construed in accordance with Scots law and the parties agree to submit to the non-exclusive jurisdiction of the Scottish courts: IN WITNESS WHEREOF these presents consisting of this and the preceding page together with the Schedule are executed as follows:

| Subscribed for and on behalf of ROSLIN II duly authorised signatory, at following witness: | NSTITUTE (EDINBURGH) by J-W MITHERS On 2003 before the |
|--|---|
| Wilness | Authorised Signatory |
| FUN Name | |
| POROSLINI INSTITUTE Address | |
| COSLIN | |
| Occupation | |
| Subscribed for and on behalf of BIOTECI RESEARCH COUNCIL by SC 12 at SWINDIN on 22 | HNOLOGY AND BIOLOGICAL SCIENCES ACCO duly authorised signalory MA*(2003 before the following witness: |
| Witness Witness | Authorised Signatory |
| MARLY MCDONAGU | • |
| BESOL, POLARISHOL | SE |

HOWN MANAGER INNOVATIONS UNTO

| • | |
|---|---|
| • | TOP THE ENVIRONMENT |
| Subscribed for and on behalf of THE SEC | RETARY OF STATE FOR THE ENVIRONMENT, duly authorised |
| FOOD & RURAL AFFAIRS by D: A. | R BUZNE , duly authorised |
| signatory at LONDON on | 10 June 2003 2003 before the |
| signatory at | |
| following witness: | |
| 11 | - Albania |
| / Sacon | |
| | Authorised Signatory |
| Witness . | • |
| EDWARD GRAHAM NACO | |
| | |
| Full Name | · c · . 0 7 = 11 |
| CROMWELL HOUSE, LO | ayou swir ssa |
| Address | • |
| Address | |
| HEAD OF MANCH B | |
| a manage Colicy SINTE | ELLATIONAL DIVISION, JEFAI |
| CENTER INC. | |
| Occupation | |
| . • | |
| | INCTITUTE (FOINBURGH) by |
| Subscribed for and on behalf of ROSLIN | 2003 before the following witness:- |
| , at on | 2000 001010 000 |
| • | |
| | |
| Witness | <i>,</i> • |
| | |
| | • |
| Full Name | |
| | |
| | · |
| Address | |
| • | • |
| *************************************** | |
| | |
| Occupation | |
| | |

This is the Schedule referred to in the foregoing Assignation by (1) Roslin Institute (Edinburgh); (2) Department for the Environment, Food & Rural Affairs; and (3) Biotechnology and Biological Sciences Research Council in favour of Roslin Institute (Edinburgh).

THE PATENTS

Quiescent Cell Populations for Nuclear Transfer (Quiescent Cells) 1. .

Priority Date:

31 August 1995

Priority Application no.:

GB 9517780.4 filed in the name of ROSLIN INSTITUTE

(EDINBURGH)

International Application no.:

PCT/GB96/02099 filed in the name of ROSLIN INSTITUTE

(EDINBURGH)

International Filling Date:

30 August 1996

† • European patent application designates: AT, BE, CH/LI, DE, DK, ES, FI, FR, GB, GR, IE, IT,

LU, MC, NL, PT, SE, SI

| Ocupted. | Geron ref. | K&S ref. | Application no. | Publication / Grant no. | Status |
|----------------------|-------------|-----------|-----------------|-------------------------|---------|
| Country | | 5.0307115 | 08/802,282 | 6,147,276 | Granted |
| USA | 700/201 | P18787US | 09/225,233 | • | Pending |
| USA* | 700/202 | J18787US | 9802915.0 | 2318578 | Granted |
| United Kingdom | 700/201UK | V18787GB | 9824304.1 | 2331751 | Granted |
| United Kingdom* | 700/202UK D | J18787GB | 96928587.3 | 0849990 | Granted |
| United Kingdott | 700/201EP | P18787EP | 96920507.3 | | Granted |
| EPO | 700/201EP | P18787EP | 96928587.3 | | Granted |
| Austria | 700/201EP | P18787EP | 96928587.3 | | Granted |
| Belgium | 700/201EP | P18787EP | 96928587.3 | | Granted |
| Switz./Llechtenstein | 700/201EP | P18787EP | 96928587.3 | ļ | Granted |
| Germany | 700/201EP | P18787EP | 96928587.3 | | Granted |
| Denmark | 700/201EP | P18787EP_ | 96928587.3 | | Granted |
| Spain | 700/201EP | P18787EP | 96928587.3 | | Granted |
| France | 700/201EP | P18787EP | 96928587.3 | <u> </u> | Granted |
| Ireland | 700/201EP | P18787EP | 96928587.3 | <u> </u> | |
| Italy | 700/201EP | P18787EP | 96928587.3 | | Granted |
| Luxembourg | 700/201EP | P18787EP | 96928587.3 | | Granted |
| Monaco | 700/201EP | P18/8/EP | 96928587.3 | • | Granted |
| Netherlands | 700/201EP | P18787EP | 96928587.3 | | Grante |
| Sweden | 700/201EP | P18787EP | 96928587. | - | Grante |
| Slovenia | 700/201EP | P18787EP | 1 90920307. | | |

13-Nov-2003 03:38pm

| Country | Geron ref. | K&S ref. | Application | Publication / | Status |
|----------------------|-------------------|-----------|-------------|---------------|-----------|
| Country | Geron ron. | 1100 101. | no. | Grant no. | |
| EPO ¹ | 700/202EP D | J18787EP | 98203752.5 | 0930009 | Pending |
| EPO ¹ • | 700/203EP D | K18787EP | 99204105.3 | 1005789 | Pending |
| South Africa | 700/201SA | P18787ZA | 96/7390 | 96/7390 | Granted |
| Czech Republic | 700/201CZ | P18787CZ | PV608-98 | • | Abandoned |
| | 700/201HU | P18787HU | P9900234 | | Abandoned |
| Hungary Norway | 700/201NO | P18787NO | 980845 | | Abandoned |
| | 700/201PL | P18787PL | · P325331 | | Abandoned |
| Poland | 700/201/RU | P18787RU | 98105782 | | Abandoned |
| Russian Federation | 700/201/UA | P18787UA | 98031551 | - | Abandoned |
| Ukraine | 700/201/OA | P18787CA | 2228568 | | Pending |
| Canada | 700/201CA | P18787BR | 9610034-6 | - | Pending |
| Brazil | 700/201BK | P18787MX | 981646 | | Pending |
| Mexico | 700/201MX | P18787CU | 28/98 | | Abandoned |
| Cuba | 700/201AU | P18787AU | 68310/96 | 716956 | Granted |
| Australia | 700/201AU D - | J18787AU | 35418/00 | 710300 | Pending |
| Australia | 700/202AG D - | P18787CN | 96197891.0 | | Pending |
| China | 700/201 (L | P187871L | 123298 | - | Abandoned |
| lerael | 700/201JP | P18787JP | 509996/96 | | Pending |
| Japan South Korea | 700/2015F | P18787KR | 701381/98 | | Pending |
| New Zealand | 700/201NZ | P18787NZ | 316149 | 316149 | Granted |
| New Zealand* | 700/202NZ D | J18787NZ | 334288 | 334288 . | Granted |
| New Zealand* | 700/203NZ D | K18787NZ | 337311 | • | Pending |
| Singapore | 700/201SG | P18787SG | 9801334-5 | 50267 | Granted |
| Singapore* | 700/202SG D | J18787SG | 9900937-5 | 75155 | Granted |
| Vietnam | 700/201VN | P18787VN | 19980153 | 2746 | Abandoned |
| Hong Kong | 700/201HK | P18787HK | 98104138.8 | 1004938 | Granted |
| Hong Kong* | 700/202HK D | J18787HK | 99104594.4 | 1019394 | Granted |

6826454 11/4FA

38654

2. Unactivated Oocytes and Cytoplast Recipients for Nuclear Transfer (Magic)

Priority Date:

31 August 1995

Priority Application no.:

GB 9517779.6 filed in the name of ROSLIN INSTITUTE

(EDINBURGH)

International Application no.:

PCT/GB96/02098 filed in the name of ROSLIN INSTITUTE

(EDINBURGH)

International Filing Date:

30 August 1996

* - Indicates divisional/continuation application filed

† - European patent application designates: AT, BE, CH/LI, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI

- (1) USSN 09/658,862 divisional from USSN 08/803,165
- (2) USSN 09/650,194 continuation of USSN 08/803,165
- (3) USSN 09/650,285 continuation of USSN 08/803,165
- (4) USSN 09/973,701 continuation of USSN 09/650,285
- (5) USSN 09/989,125 continuation of USSN 09/650,285
- (6) USSN 09/989,128 continuation of USSN 09/650,285
- (7) USSN 09/989,126 continuation of USSN 09/650,285
- (8) USSN 10/118,337 continuation of USSN 09/989,125
- (9) USSN 10/151,304 continuation of USSN 09/989,128
- (10) USSN 10/151,305 continuation of USSN 09/989,126
- (11) USSN 10/190,611 continuation of USSN 09/650,285 (12) - USSN 10/190,617 continuation of USSN 09/650,285
- (13) USSN 10/234,854 continuation of USSN 10/151,305

| | | • | | | |
|---------------------|-------------|-------------|-----------------|----------------------------|-----------|
| Country | Geron ref. | K&S ref. | Application no. | Publication / Grent no. | Status |
| USA | 710/201 | P18826US | 08/803,165 | 6,252,133 | Granted |
| USA=(1) | 710/202 D | J18826US | 09/658,862 | | Pending |
| · USA=(2) | 710/204 C | V18826US | 09/650,194 | - | Pending |
| · USA*(3) | 710/203 C | W18826US | 09/650,285 | | Pending |
| USA*(4) | 710/210 C | W18826US-1 | 09/973.701 | - | Pending |
| USA ⁻⁽⁵⁾ | 710/205 C | W18826US-2 | 09/989.125 | | Pending |
| USA*(6) | 710/206C | W18826US-3 | 09/989,128 | | Pending |
| USA*(7) | 710/207C | W18826US-4 | 09/989,126 | | |
| USA*(8) | 710/211C | W18826US-5 | 10/118.337 | | Pending |
| USA -(V) | 710/212C | W18826US-6 | 10/151,304 | | Abandoned |
| USA -(10) | 710/213C | W18826US-7 | 10/151,304 | | Abandoned |
| USA =(11) | 710/209C | W18826US-8 | 10/190,611 | | Abandoned |
| USA *(12) | 710/214C | W18826US-9 | | | Abandoned |
| USA *(19) | 710/2140 | | 10/190,617 | - | Pending |
| | 7.00000000 | W18826US-10 | 10/234,854 | - | Pending |
| United Kingdom | 710/201UK | V18826GB | 9802916.8 | 2318792 | Granted |
| United Kingdom* | 710/202UK D | J18826GB | 9926730.4 | 2340493 | Granted |
| EPO ¹ | 710/201EP | P18826EP | 96928586.5 | 0847237 | Pending |
| South Africa | 710/201SA | P18826ZA | 96/7383 | 96/7383 | Granted |
| Czech Republic | 710/201CZ | P18826CZ | PV604-98 | | Abandoned |
| Hungary | 710/201HU | P16826HU | P9802485 | | Abandoned |
| Norway | 710/201NO | P18826NO | 98084€ | _ | Abandoned |

| Country | Geron ref. | K&S ref. | Application no. | Publication / | 0 |
|--------------------|--------------|--------------|------------------|---------------|-----------|
| | | | , spoulation no. | Grant no. | Status |
| Poland | 710/201PL | P18826PL | P325336 | Oldin No. | Aband |
| Russian Federation | 710/201RU | P18826RU | 98105617 | | Abandoned |
| Ukraine | 710/201UA | P18826UA | 98031552 | | Abandoned |
| Canada | 710/201CA | P18826CA | 2229657 | 2229657 | Abandoned |
| Brazil | 710/201BR | P18826BR | 9610013-3 | 2223031 | Pending |
| Mexico | 710/201MX | P18826MX | 981645 | | Pending |
| Mexico* | 7.10/202MX D | J18826MX-1 | PA/a/2001/010 | | Pending |
| | | O TOOLOWING! | 145 | • | Pending |
| Cuba | 710/201CU | P18826CU | 29/98 | | <u> </u> |
| Australia | 710/201AU | P18826AU | | - | Abandoned |
| Australia* | 710/202AU D | J18826AU | 68309/96 | 728809 | Granted |
| Australia* | 710/203AU D | K18826AU | 28013/01 | - | Pending |
| China | 710/201CN | | 28014/01 | | Pending |
| Israel | 710/201IL | P18826CN | 96197892.9 | • | Pending |
| Japan | 710/201JP | P18826IL | 123417 | • | Abandoned |
| South Kores | 710/201SP | P18826JP | 509995/96 | • | Pending |
| New Zealand | 710/201NZ | P18826KR | 98-701382 | | Pending |
| | | P18826NZ | . 316148 | 316148 | Granted |
| New Zealand* | 710/202NZ D | J18826NZ | 335407 | 335407 | Granted |
| New Zealand* | 710/203NZ D | K18826NZ | 504101 | - | Pending |
| Singapore | 710/201SG | P18826SG | 9801330-3 | | Pending |
| Singapore* | 710/201SG D | J18826SG | 9900941-7 | 75919 | Granted |
| Vietnam | 710/201VN | P18826VN | S19980152 | 2747 | Abandoned |
| Hong Kong | 710/201HK | P18826HK | 98104135.1 | 1004937 | Granted |
| Hong Kong* | 710/202HK·D | J18826HK | 00103527,6 | 1024381 | Granted |

Signed on behalf of Roslin

Signed on behalf of DEFRA

Signed on behalf of BBSRC





ASSIGNATION

This is an assignation by Biotechnology and Biological Sciences Research Council, whose principal office is at Polaris House, North Star Avenue, Swindon SN2 1UH, England ("BBSRC"); the Roslin Institute (Edinburgh) of Roslin Biotechnology Centre, Roslin, Midlothian EH25 9PS, Scotland ("the Institute"); Geron Bio-Med Limited; a company incorporated in Scotland (Registered No. 179263) and having its Registered Office at Roslin Biotechnology Centre, Roslin, Midlothian EH25 9PS, Scotland ("Bio-Med"); and Ian Wilmut and Jie Zhu along with Paul De Sousa and Timothy James King of Midlothian, Scotland ("the Inventors"), in favor of Geron Corporation, a Delaware corporation having a principal place of business at 230 Constitution Drive, Menlo Park, California 94025, USA ("Geron"). Collectively, the BBSRC, the Roslin Institute, Bio-Med and the Inventors are hereby referred to as the ASSIGNORS.

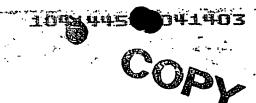
WHEREAS:

(A) The Inventors have created certain new and useful improvements directed towards optimising the developmental competence of oocytes, such invention being described in the following patent application:

| Patent Application No. | Title | Filing Date |
|------------------------|-------------------------------|-----------------|
| International Patent | Porcine Oocytes with Improved | 12 October 1999 |
| Application No. | Developmental Competence | |
| PCT/GB99/03384 | · | |

- (B) Said invention was created by the Inventors in their capacity as employees of the BBSRC based at the Roslin Institute and in circumstances such that the Inventors' rights to the Inventions belong ab initio to the BBSRC by virtue of the provisions of the UK Patents Act 1977.
- (C) The invention was created in the course of (i) a research project funded by Geron Bio-Med Limited pursuant to a Research Agreement entered into between the Institute and Geron Bio-Med Limited dated 7th April 1998 and (ii) a research project funded by Geron pursuant to a Research and License Agreement entered into between the Institute, Geron and Geron Bio-Med Limited dated 30th April and 3th May 1999 ("the Research Agreements"). Pursuant to the Research Agreements, and as agreed between Geron and Geron Bio-Med, all rights in and to the invention and the patent application belong to Geron.
- (D) Whereas, the rights in this invention held by Paul De Sousa and Timothy James King have previously been conveyed.





NOW THEREFORE IT IS AGREED AS FOLLOWS:

1. **DEFINITIONS**

In this Assignation (including the Recitals) unless the context otherwise requires:

Invention means the invention relating to optimising the developmental competence of oocytes which is the subject of the Patent Application;

Intellectual Property Rights means all present and future and other relevant intellectual property rights relating to the Invention, and all applications and rights to apply for registration of such rights anywhere in the world and the right to sue for any and all past infringements of such rights;

Patent Application means the International Patent Application No. PCT/GB99/03384.

ASSIGNATION

The BBSRC, the Roslin Institute, Bio-Med and the Inventors by their execution of this Assignation, hereby assign to Geron Corporation (the Assignee), all property, right, title, and interest in and to the Invention, the Patent Application and the Intellectual Property Rights, including all statutory and common law rights.

3. UNDERTAKING

Each of the Assignors hereby irrevocably undertake at the request and cost of the Assignee to do and execute all such further documents, forms and authorisations as may be required to vest its full property, right, title and interest in and to the Invention, the Patent Application and any other. Intellectual Property Rights in the Assignee absolutely, including but not limited to registration of the Assignee's title as proprietor at relevant patent offices and trade mark registries anywhere in the world and, for this purpose, each of the Assignors hereby irrevocably appoints the Assignee to act as their attorney with the power to do and execute any such documents, forms and authorizations on their behalf.

4. GOVERNING LAW

This Assignation shall be governed by and construed in accordance with the laws of Scotland and the parties hereby prorogate the exclusive jurisdiction of the Scotlish Courts: IN WITNESS WHEREOF these presents on this and the preceding page are executed as follows:





SUBSCRIBED for and on behalf of AND BIOLOGICAL BIOTECHNOLOGY SCIENCES RESEARCH COUNCIL by

| , Authorised Signatory, | ~ · ~ |
|---|---|
| at Sunnown on 14 MM 2001 before the following Witness: | For and on behalf of Blotechnology and Biological Sciences Research Souncil |
| Witness | • |
| KAKEN JAME UNIS Full Name | |
| 4 QUEST STREET Address | |
| CEADINE | .• |
| | |
| | |
| | |
| SUBSCRIBED for and on behalf of ROSLIN | |
| INSTITUTE (EDINBURGH) by | |
| , Authorised Signatory, | - + - |
| at Roshi | |
| on 15 M on 2001 before the | Tdinhumh) |
| following Witness: | For and on behalf of Roslin Institute (Edinburgh) |
| FRANCE BURGES Full Name 8 SKELTIEMUR AVE Address BONNYRUGE | |
| | |
| • | |
| SIGNED by Ian Wilmut at Roden ; | |
| on 15 May 2001 before the | . |
| following Witness: | \sim \sim \sim |
| Month Onyough Witness MORY DAYBURGH Full Name 30 CARLUPS CLES Address | lan Wilmut |





SIGNED by Jie Zhu at 2001 before the on Roses 15my following Witness:

こうしゅうしゅう アングライド のいっしょう

Jie 3hu

SUBSCRIBED for and on behalf of GERON BIO-MED LIMITED by BRAD HOY

, Authorised Signatory,

at ROSLIN on 17th MAY following Witness:

2001 before the

Jie Zhu

For and on behalf of Geron Bio-Med L

Jacquelia Krig.... Witness JACQUELINE C. JOUNG Full Name .S. MULLPARK... ELBATHA Address ...DALKEITHEH22.3JG

SUBSCRIBED for and on behalf of GERON CORPORATION by DAVID & EARP

, Authorised Signatory,

on October 10

following Witness:

2001 before the

MALSKY Full Name

For and on behalf of Geron Corporation





ASSIGNATION

This is an assignation by Biotechnology and Biological Sciences Research Council, whose principal office is at Polaris House, North Star Avenue, Swindon SN2 1UH, England ("BBSRC"); the Roslin Institute (Edinburgh) of Roslin Biotechnology Centre, Roslin, Midlothian EH25 9PS, Scotland ("the Institute"); Geron Bio-Med Limited, a company incorporated in Scotland (Registered No. 179263) and having its Registered Office at Roslin Biotechnology Centre, Roslin, Midlothian EH25 9PS, Scotland ("Bio-Med"); and Paul Alexandre De Sousa and Timothy James King of Midlothian, Scotland ("the Inventors"), in favor of Geron Corporation, a Delaware corporation having a principal place of business at 230 Constitution Drive, Menlo Park, California 94025, USA ("Geron"). Collectively, the BBSRC, the Roslin Institute, Bio-Med and the Inventors are hereby referred to as the ASSIGNORS.

WHEREAS:

(A) The Inventors have created certain new and useful improvements directed towards optimising the developmental competence of oocytes, such inventions being described in the following patent applications:

| Patent Application No. | Title | Filing Date |
|---|--|-----------------|
| UK Patent Application No. | Biological Manipulation | 12 October 1998 |
| 98 22235.9 U.S. Patent Application No. 60/104,116 | Optimising Developmental Competence of Oocytes | 13 October 1998 |
| International Patent Application No. PCT/GB99/03384 | Porcine Oocytes with Improved Developmental Competence | 12 October 1999 |

- (B) Said inventions were created by the Inventors in their capacity as employees of the BBSRC based at the Roslin Institute and in circumstances such that the Inventors' rights to the Inventions belong ab initio to the BBSRC by virtue of the provisions of the UK Patents Act 1977.
- (C) The inventions were created in the course of (i) a research project funded by Geron Bio-Med Limited pursuant to a Research Agreement entered into between the Institute and Geron Bio-Med Limited dated 7th April 1998 and (ii) a research project funded by Geron pursuant to a Research and License Agreement entered into between the Institute, Geron and Geron Bio-Med Limited dated 30th April and 3th May 1999 ("the Research Agreements"). Pursuant to the Research Agreements, and as agreed between Geron and Geron Bio-Med, all rights in and to the inventions and the patent applications belong to Geron.

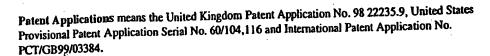
NOW THEREFORE IT IS AGREED AS FOLLOWS:

i. DEFINITIONS

In this Assignation (including the Recitals) unless the context otherwise requires:

Invention means the invention relating to optimising the developmental competence of oocytes which is the subject of the Patent Applications;

Intellectual Property Rights means all present and future and other relevant intellectual property rights relating to the Invention, and all applications and rights to apply for registration of such rights anywhere in the world and the right to sue for any and all past infringements of such rights;



2. ASSIGNATION

The BBSRC, the Roslin Institute, Bio-Med and the Inventors by their execution of this Assignation, hereby assign to Geron Corporation (the Assignee), all property, right, title, and interest in and to the Invention, the Patent Applications and the Intellectual Property Rights, including all statutory and common law rights.

3. UNDERTAKING

Each of the Assignors hereby irrevocably undertake at the request and cost of the Assignee to do and execute all such further documents, forms and authorisations as may be required to vest its full property, right, title and interest in and to the Inventions, the Patent Applications and any other Intellectual Property Rights in the Assignee absolutely, including but not limited to registration of the Assignee's title as proprietor at relevant patent offices and trade mark registries anywhere in the world and, for this purpose, each of the Assignors hereby irrevocably appoints the Assignee to act as their attorney with the power to do and execute any such documents, forms and authorizations on their behalf.

4. GOVERNING LAW

SUBSCRIBED for and on behalf of BIOTECHNOLOGY AND BIOLOGICAL SCIENCES RESEARCH COUNCIL by SCOTT

on 10/11/2000 before the following Witness:

M. LAWRIE, Authorised Signatory, at 5WINDON

This Assignation shall be governed by and construed in accordance with the laws of Scotland and the parties hereby prorogate the exclusive jurisdiction of the Scottish Courts: IN WITNESS WHEREOF these presents on this and the preceding page are executed as follows:

| Witness MARY MCDOSORY Full Name 8 CLYOS CORPES Address WAS HTONESSINGS | For and on behalf of Biotechnology and Biological Sciences Research Council |
|--|--|
| SUBSCRIBED for and on behalf of ROSLIN INSTITUTE (EDINBURGH) by John Without, Authorised Signatory, at on 13 1 11 2000 before the following Witness: Witness FRANCE BURGES Full Name S. SKELTIEMALE Address DONNY CLATA | For and on behalf of Roslin Institute (Edinburgh) |



| SIGNED by Paul Alexandre De Sousa at hosen on 3 i & 12000 before the following Witness: Many S. Michaell Witness Many S. Michaell Witness Many S. Michaell Witness Many S. Michaell Witness Paul Alexandre De Sousa |
|---|-------------------------|
| SIGNED by Timothy James King at COULD on 3 Oct 2000 before the following Witness: UNAU S. HUPPHY. Witness ROSHN TOST. Full Name ROSHN Address MIDLOTHIAN FH25 9PS | Timothy James King |
| SUBSCRIBED for and on behalf of GERON BIOMED LIMITED by David L. Greenwood Authorised Signatory, at Menton Company on Subscription of the 2000 before the following Witness: Walkers Witness Karen Hakausky Full Name 230 Constitution Drive Address Mento Park, CA 94025 | |
| SUBSCRIBED for and on behalf of GERON CORPORATION by David J. Earp , Authorised Signatory, at Men on Silve 2000 before the following Witness: Wakanaky Witness, Karen Hakausky Full Name 230 Constitution Drive Address Menlo Park, CA 94025 | A ÷ |

ASSIGNMENT OF INTEREST

This Assignment of Interest is entered by and between ROSLIN INSTITUTE (BDINBURGH), a company incorporated in Scotland under the Companies Acts with registered number 157100 and a registered office at Roslin, Edinburgh, Midlothian, EH25 9PS, Scotland (the "Institute"); and GERON CORPORATION, a Delaware corporation having its principal place of business at 230 Constitution Drive, Menlo Park, California 94025 ("Geron");

WHEREAS, Geron owns all right, title, and interest in and to issued U.S. Patent 6,548,741, entitled "Developmental Competence for Assisted Reproduction and Nuclear Transfer in Pigs" (the "Patent"); and

WHEREAS, Geron wishes to assign all of its right, title and interest in and to the Patent to the Institute, so as to align ownership with the intellectual property licensed to Geron from the Institute by virtue of the Licence Agreement by and between the parties dated as of April 30, 1999, as amended by an agreement dated as of September 30, 2003, and further amended by an agreement dated as of April 5, 2005, respectively.

NOW, THEREFORE, the parties agree as follows:

For good and valuable consideration, the receipt of which is hereby acknowledged, Geron hereby assigns to the Institute all of its right, title and interest in and to the Patent.

The Institute hereby agrees that it will not transfer or reassign its ownership of the Patent which is the subject of this Assignment except in compliance with any Terminal Disclaimer(s) effected through the U.S. Patent & Trademark Office that bind ownership of the Patent to that of any other patent or application.

In testimony whereof, Geron and the Institute have caused this Assignment to be signed by their duly authorised officers, making this Assignment effective as of the last dated signature below.

1

| GERON CORPORATION | Roslin Institute (Edinburgh) |
|--|--------------------------------|
| DEED | Mostra |
| Authorised Signature | Authorised Signature |
| MARCH 6, 2007 | 6 Manc 2007 |
| Date DAND J. EARP | MACOLLA BAJEMAN |
| Name CHIEF PATENT COUNCEY SEMOL VICE PRESIDENT | WARRELT OR OF HAMPINE |
| MENLO PARK, CA. | Title ROLLIN |
| Place | Place |
| | |
| Before this witness | Before this witness a lamball |
| Witrless | Witness |
| Pamela Smith | Anne Campbell |
| Full name | Full Name |
| Menlo Park, CA | Roslin Institute Roslin |
| Address | Address Midlothian EH25 9PS |

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